Wisconsin Grazing Initiative 2010 Annual Report

A compilation of regional and statewide managed grazing Education, Research, and Technical Assistance projects made possible by the Wisconsin Grazing Lands Conservation Initiative (GLCI), 2008-2010



The **Grazing Lands Conservation Initiative** is dedicated to the protection and improvement of private grazing lands. The organization was founded to provide high quality technical assistance on privately owned grazing lands on a voluntary basis and to increase the awareness of the importance of grazing land resources.

Wisconsin Grazing Inititative 2010

Published January 2011
Contents highlight completed projects in the year 2010
Includes updates and highlights from all grants in progress
from 2008-2010 funds

Program Goal Statement

Our mission is to expand the use of profitable, grazing-based livestock production systems that foster environmental stewardship. This will be accomplished through high quality technical assistance to owners and operators of private land, university and producer coordinated research, and educational programs.

Supporting Organizations

Project

Wisconsin Grazing Lands Conservation Initiative, Contact: Chairman Paul Onan, 9659 Grayson Road, Amherst Junction, WI 54407, (715) 824-2527, ponan@winet.com

Budget and Fiscal Manager



United States Department of Agriculture

Natural Resources Conservation Service

Wisconsin Natural Resource Conservation Service, <u>www.wi.nrcs.usda.gov</u>, Contact: Brian Pillsbury, State Grazing Specialist, 505 Broadway Room 232, Baraboo, WI 53913, (608) 355-4470, <u>brian.pillsbury@wi.usda.gov</u>

Grant Program Administrator



Wisconsin Department of Agriculture, Trade and Consumer Protection, www.datcp.state.wi.us, Contact: Laura Paine, Grazing and Organic Agriculture Specialist, 2811 Agriculture Drive, PO Box 8911, Madison, WI 53708-8911, (608) 224-5120, laura.paine@wi.gov

Report Author and Editor



UW-Madison Center for Integrated Agricultural Systems, <u>www.cias.wisc.edu</u>, Contact: Steve Neary, 1535 Observatory Drive, Madison, WI 53706, (262) 617-0941, <u>glcitracking@gmail.com</u>

GLCI Grant Highlights 2008-2010

Total Projects Funded = 61
13 Research Projects
29 Educational Projects
19 Technical Assistance Projects

Total Funding Spent = \$1,873,779

Completed Activities in 2010

Pasture Walks, Farm Tours and Demos

181 throughout Wisconsin

Educational Workshops, Conferences and Meetings

174 throughout Wisconsin

Grazing Plans Written

427 plans (new and revised) with over **25,270** acres planned and managed

College Partners

University of Wisconsin-River Falls University of Wisconsin-Madison University of Wisconsin-Eau Claire WI Technical Colleges

Publications Created

The Grazing Planner Grassworks Quarterly Newsletter

Media Connections

Television, Radio, Newspapers, World Wide Web

Non-Traditional Audiences

Amish, Mennonites, New Graziers, Women, Asian, Native American, African American, Disabled Farmers

Introduction from GLCI President Paul Onan

We continue to be amazed by the accomplishments of many grazing projects funded by the Grazing Lands Conservation Initiative. It is with this 5th edition of the Wisconsin Grazing Initiative Annual Report that we highlight the accomplishments as well as summarize what is going on around the state with regard to grazing education, research, and technical assistance.

We hope you find this book as exciting and interesting as we did putting it together. These projects are the result of a great deal of creativity and drive. We have designed the program to provide flexibility, allowing each project address the unique issues and goals of farmers in the local community. Grantees and their farmer partners are dedicated to doing their part to ensure that Wisconsin agriculture is profitable and environmentally friendly.

Funding is provided annually and each project can last up to three years. In the first section of the book, we are proud to present final reports of projects that were completed in 2010. There are also summaries of each of the projects that were funded in 2009 and 2010 and are on-going. We applaud the farmers, agencies, and organizations whose projects are summarized in this report. We are proud of their accomplishments!

Since the 1999 inception of GLCI in Wisconsin, nearly \$8 million has been spent promoting, researching and developing grazing on private lands. We have leveraged each of those dollars with an additional \$.40 in matching funds. The results: Wisconsin is leading the nation in converting row crop acres to permanent grazeable vegetation. New start up dairy and beef farms are almost exclusively grass based operations. Surveys show dairy grazers score very high on the "happy meter" regarding contentment of occupation, with higher per cow and per hundredweight returns than their confinement peers, contributing greatly. In addition, grazing encourages carbon sequestration and reduces soil loss!

Happy grazing,

Paul Onan

Dairy farmer from Amherst Junction and GLCI President

Taul R. Onan

Accomplishments

While each of the GLCI-funded education, technical assistance and research projects has taken its own approach to improving managed grazing in Wisconsin, there are enough similarities between many of them to consider their accomplishments and discoveries together. The education projects were completed between 2008-2010 and reported their activities in varying levels of detail. Some carried out specific efforts to educate a specific group, others considered the overall community they were trying to reach, and yet others aimed to educate the whole state. All-in-all their one common goal was educate the farming community as well as the general public about managed grazing and its economic, environmental and social benefits.

Education: Completed project accomplishments totaled more than:

- An estimated 42,430 farmers were served directly through pasture walks, meetings, classes, workshops, one-on-one consultations, farm visits, etc., based on reported attendance at each event (some farmers may have attended more than one event).
- · 181 pasture walks, farm tours and demos occurred during the grazing season.
- 174 winter meetings, conferences or workshops were held.
- Tens of thousands of people were introduced to managed grazing through targeted print, television, radio, and internet publicity.

Technical Assistance: Each of the GLCI funded technical assistance projects were designed to develop, deliver and assist farmers with new and existing grazing plans. The completed projects were able to reach over **318** new graziers and created plans for those farmers totaling over **17,873** acres of grass-dominated pasture. In addition, over **109** farmers received continued plan assistance with another **7,397** acres of grass-dominated pasture. This creates a positive, long-lasting impact on our economy, our environment and our communities.

Research: GLCI funded research projects described here generally took place between 2008-2010. The research projects:

- Involved farms using managed grazing, research stations and university farms for the experiments.
- · Were completed by both farmers and researchers.
- · Achieved the best results in unified communities.
- · Contained educational components that provided distribution and education to graziers across the state.

The success of these projects can be measured qualitatively, as well as quantitatively. The following themes expressed by the project leaders and participants are key to the future success of programs and activities that support managed grazing:

- Projects are very successful when farmers teach farmers by sharing information and knowledge and skills.
- Public events and media coverage of these projects increased general awareness of managed grazing and their many benefits to Wisconsin's rural landscape, communities and economy.
- · More work is still needed.

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Completed Projects

This section contains summaries of all Technical Assistance, Education and Research projects completed in 2010



Columbia Dodge Grazing Network: Continuing to Build on Our Success (804-2)

Over the course of two years, nine pasture walks and one winter meeting was held. A total of 232 people attended these events. Event topics included: dairy/beef/sheep/poultry management, organic production, weed management, nutrient management, pasture design, watering systems, overwintering, direct marketing, grass/legume selection, and pasture establishment.

The variety of topics offered provided graziers of all experience levels the opportunity to gain knowledge from attending a Columbia-Dodge County grazing event. In addition to the formal topics addressed at meetings, attendees were able to freely communicate with other attendees to explain their experiences and their reasoning for their management strategies. This was especially benefical to new graziers but also allowed experienced graziers the opportunity to tweak their own management system.

One particular event of note was the August 2010 pasture walk at the Marvin MacLeish farm. This pasture walk covered a broader spectrum of animal species than most pasture walks due to the presence of a panel of farmers that raised dairy, beef, and sheep. In addition to the diveristy of livestock that were managed, recent watering structure upgrades showed attendees how water can be moved long distances and over varying topography.

Another meaningful event was the visit to the Craig farm near New Holstein. Having a pasture walk at a location outside of Columbia and Dodge Counties was unexpected, but was a welcome addition to the schedule. While attendance was low, those who made the trip to the Craig farm got to experience one of the more unique farming operations in the state. Attendees observed how the Craigs run a seasonal dairy farm that also pasture raises chickens and turkeys. All is produced organically and sold through their on-farm store.

Grant Project Objectives:

- 1) Provide grazing management education to Columbia and Dodge Co. livestock and dairy farmers through teaching, technical assistance, and farmer to farmer learning
- 2) Promote environmentally sound grazing management and enhance awareness among graziers and natural resource managers of the value of well managed grazing in natural resource protection
- 3) Evaluate the effectiveness of ongoing education and technical assistance efforts in Columbia and Dodge counties

Accomplishments

- -9 pasture walks (231 attendees)
- -1 winter/spring grazing workshop (24 attendees)
- -41 one-on-one contacts
- -Served Women farmers

Partners

NRCS, UWEX, DATCP, Columbia and Dodge County LCD

Project Location

Southcentral WI

Contact Info:

Joe Bollman UWEX - Columbia County PO Box 567 Portage, WI 53901 (608) 742-9682 joe.bollman@ces.uwex.edu

Southeastern WI Grazing Education Project (806-2)

During this final reporting period the Southeastern Grazing Education Project acheived a number of the goals that it set out to accomplish two years ago. The first objective, which is outlined on the right, was met and exceeded during this grant period. In total, 53 farmers requested and received grazing plans. Of these 53 farmers, 11 of them were women. In addition to receiving a grazing plan, all of the farmers were also granted at least one farm visit by a Town & Country grazing specialist.

The project came very close to meeting its second objective. The Grazing Education specialist and/or Grazina Technical Assistance Specialist directly spoke to 419 graziers or potential graziers throughout the course of this grant. This contact mostly arose during the 32 grazing events, pasture walks, and seminars held or attended by members of Town & Country RC&D over the past two years. Some of the highlighted events include: WI Cattlemens Convention, World Dairy Expo, GrassWorks WI Grazing Conference, MOSES Organic Conference, and a Jim Gerrish grazing workshop held by Town & Country. The third objective was also exceeded as well over 250 members of the general public were encountered at the various events.

Town & Country is proud of all the events they hosted and educational work they completed. The Calving Seminar & Pasture Walk was unique and very educational, and was a highlight of the grant program. Some of the existing graziers that attended had high calf mortality rates and felt they now have a much better understanding of necessary actions. Many of the new to grazing group felt like they will be better prepared at calving time and some of the existing senior graziers offered help and mentoring to the inexperienced farmers. Additionally, this event helped re-engage existing graziers and developed many new contacts and partnerships for the Southeast Wisconsin Grazing Education Program.

Grant Project Objectives:

- 1) Increase the number of farms using managed grazing by having 40 farmers requesting grazing plans, including 10 women farmers
- 2) Improve the ecological and productive condition of existing pastures by involving 500 existing, new and/or potential graziers in grazing education activities
- 3) Promote managed grazing as a viable, conservation-based farming practice to both farmers and the general public by involving 250 members of the general public in appropriate grazing education events

Accomplishments

- -1 pasture walk (33 attendees)
- -3 farm tours (68 attendees)
- -2 grazing workshops (132 attendees)
- -2 grazing product presentations (136 attendees)
- -238 one-on-one contacts
- -Served Women farmers

Partners

NRCS, UWEX, CRAFT, WI River Alliance, Jefferson East Elementary, Ft. Atkinson Farmers Market, GrassWorks, Frank Organic Feed, Blue River Hybrids, Albert Lea Seed, Dram Corp.

Project Location

Southeast WI

Contact Info:

Town & Country RC&D 134 W Rockwell St. Jefferson, WI 53549 (414) 774-6562

Marathon and Lincoln County Management Intensive Grazing Promotion and Implementation Project (810-2)

Marathon and Lincoln Counties were especially proud of the accomplishments of its educational efforts that drove the development and implementation of new grazing plans. Especially important was the development and implementation of grazing plans for 16 new farmers, three Amish farmers and seven women. The project continues to exceed its goals on the number of plans developed each and every year. The diversity and strength of the farming community is a real asset to both Marathon and Lincoln Counties. The ability to reach new farmers and have them begin their farming careers utilizing managed grazing will help ensure that there are financially secure, environmentally sound farming systems that also fit into local communities.

One of the biggest accomplishments of this project was having one of its first new dairy farmers back in 1998 become the 2009 Conservation Farmer of the Year for Wisconsin, Peter and Suzie Arnold. A Conservation Observance Day celebration was held at the Arnolds' in June of 2010.

One measure of success for this project was by the tracking of erosion reductions and phosphorus reductions attributed to the implementation of managed grazing plans. The results were tallied and published, along with press releases, to agricultural newspapers as part of the effort to educate the general public about the benefits of managed grazing. The goals and actual achievements are as follows: Both goals were exceeded, as actual reduction of erosion was 3,240 tons on 1,620 acres of land that were converted to managed grazing, as well as 16,200 lbs of phosphorus reduction on new managed grazing acres.

Other goals that were met and exceeded include attracting Amish and Mennonite farmers to project events, developing new and existing grazing plans, and providing individual follow-up assistance to over 50 graziers.

Grant Project Objectives:

- 1) To reduce cropland erosion and animal waste runoff into the waters of the state
- 2) Attract and educate beginning farmers and farmers new to grazing about MIG
- 3) Educate agricultural lenders, educators, and agri-business professionals about the benefits of MIG

Accomplishments

- -19 pasture walks (320 attendees)
- -2 grazing workshops (60 attendees)
- -Held winter grazing conference (125 attendees)
- -Held grazing summer school for UWSP students (105 attendees)
- -12 newsletters sent to 1,250+ person mailing list
- -Reduced 3,240 tons of soil erosion on 1,620 acres of land
- -Reduced 16,200 lbs of phosphorus runoff
- -3000+ one-on-one contacts
- -Served Amish, Mennonite, and Women farmers

Partners

NRCS, Pri-Ru-Ta RC&D, Golden Sands RC&D, Northcentral Technical College

Project Location

Northcentral WI

Contact Info:

Paul Daigle Marathon Co. Land Conservation 210 River Dr. Wausau, WI 54403-5449 (715) 261-6006 paul.daigle@co.marathon.wi.us

River Country RC&D Grazing Educational Assistance Program (820-2)

This project has had many accomplishments over the past year. It was responsible for the West Central winter grazing conference, held in Eau Claire last March. The conference featured Jim Gerrish as a keynote speaker in addition to a farmer/producer panel and a tradeshow. The proceeds from the conference not only covered conference expenses, but they also provided locally grown 100% grass fed meat from Out to Pasture Beef as well as a scholarship for 18 Menomonie H.S. FFA Coop. students to attend the conference. The event was featured in Graze and The Country Today. It was also a topic of discussion on Bob Bosold's radio program on WAXX radio station.

Another postive impact made by the project was realized in the form of several presentations made to students over the past year. There were three presentations made to Menomonie FFA and agricultural science classes, one to a UW Eau Claire conservation biology class, and numerous presentations at the Polk County Earth Day celebration that spanned students from third to eighth grade. In total, over 737 students were instructed on the benefits of managed grazing. Schooling young people on the benefits of managed grazing is one of the best ways of keeping MIG at the forefront of modern agricultural discussion.

There were several occasions when this project achieved above and beyond the deliverables spelled out in the original grant. This included an on-going collaboration with the UW River Falls Sustainable Agriculture Program. This collaboration resulted in not only an exchange of information between both parties, but also led to an additional discussion group with UWEX and an economist from UW Madison's Center for Integrated Agricultural Systems (CIAS). There was also an additional unplanned pasture walk that was led by the Wisconsin Grass Fed Beef Cooperative that focused on strategic outwintering of cattle.

Grant Project Objectives:

- 1) Provide on-farm educational events for farmers and ag professionals about the benefits of MIG and how a grazing operation manages stages of grass during the entire growing season
- 2) Provide educational opportunities on beginning and advanced grazing management topics
- 3) Provide on-farm, one-on-one educational sessions for beginning and advanced graziers, and landowners who are interested in implementing MIG systems on their farms

Accomplishments

- -3 discussion groups (56 attendees)
- -5 pasture walks (119 attendees)
- -Held West Central WI winter grazing conference (100 attendees)
- -5 grazing presentations to students (737 attendees)
- -217 one-on-one contacts
- -Served Women farmers

Partners

UWRF, UWEX, Center for Dairy Profitability, WI Grass Fed Beef Coop, St. Croix Valley/Chippewa Valley/Coulee Graziers Networks, Pri-Ru-Ta RC&D, Dunn Co. LCD, Organic Valley, Byron Seeds, Out to Pasture Beef, Joe Tomandl, Menomonie HS, UWEC, AgStar, Seeds'N'Stuff, Cutler Fence

Project Location

Northwest WI

Contact Info:

River Country RC&D 1304 N Hillcrest Parkway Suite B Altoona, WI 54720 (715) 834-9672 ext. 120 rivercountry@rivercountryrcd.org

Crawford County Grass-Based Economic Development (822-2)

This educational program centered on promoting the grazing-friendly atmosphere of Crawford County through print, educational events (World Dairy Expo and the Wisconsin Grazing Conference) and focused programs. In addition, a grazing liaison was partially funded to give individual attention to those farmers seeking information.

Three large advertisements in Graze magazine and two in-depth articles in the Courier Press and Agri-View generated a large number of calls for additional information. Two years of hosting a grazing booth at the World Dairy Expo also increased contacts that where made through this project.

The projected outcomes for this project were modest. Unfortunately, these modest efforts were not met over the course of the grant period. At reporting time, there was only one relocation of a grass-based farm to Crawford County. The agricultural economy and the general economy were certainly negative the last two years, and most likely had a lot to do with this lack of success. Despite great interest in the prospect of grass-based farming in Crawford County, the uncertain economic conditions prevented most from following through on their interest. Farmers expressed concern that this was not an ideal time to make a major change.

In spite of this, however; this project has by all measures been successful at raising awareness of Crawford County and Wisconsin's potential as a grazing destination. This is particularly true for small or medium-sized operations based on the calls, emails and direct visits by interested parties. This project has successfully allowed cooperation between UW Extension, DATCP, NRCS and GrassWorks.

Grant Project Objectives:

- 1) Publicize Crawford County as a premier grazing destination for a grass-based business
- 2) Relocate 8 grass-based farmers to Crawford County
- 3) Transition 10 non-intensive grazing farmers to management intensive grazing operations
- 4) Promote managed grazing to nontraditional audiences

Accomplishments

- -Booths at World Dairy Expo
- -161 one-on-one contacts
- -Served Amish and Mennonite farmers

Partners

UWEX, DATCP, NRCS, GrassWorks

Project Location

West Central WI - Crawford Co.

Contact Info:

Angie Wright Southwest Badger RC&D 150 W Alona Ln Lancaster, WI 53813 (608) 723-6377 ext. 135 angie.wright@tds.net

Northwest Wisconsin Graziers Network Education and Demonstration Project (828-2)

NW Graziers educational activities typically include pasture walks, a winter conference, various seminars, grazing planning, planning follow-up and other on-farm and individual contacts. The Network hosted or co-hosted seven pasture walks in 2008 and nine walks in 2009. Average attendance at the pasture walks was 40. A wealth of information at four walks in 2009 was provided by two of the most famous grazing experts in the US – Jim Gerrish and Joel Salatin. Since mid-2004, there have been at least 1030 attendees at pasture walks. Pasture walks have been one of the most effective teaching tools that NW Graziers employs.

NW Graziers and ABDI Graziers co-hosted a second UW-River Falls grazing school at the Telemark Resort in Cable in 2009. UW-Extension hosted the Beginning Farmer course the past three winters at Spooner, Frederic and the LCO College in Hayward. The past three NW Regional cow-calf seminars (2008-10) hosted by Extension were held on beef grazing farms in Sawyer, Burnett and Washburn Counties and attracted an average of 35 persons.

Mentoring has occurred without formalizing it as a program. Lynn Johnson, the NW Graziers intern and steering committee member, worked with a dozen graziers in 2009 as a follow-up to grazing planning. At least half of them resulted in longer-term relationships with multiple phone calls or farm visits. Randy Gilbertson has been coaching or mentoring some graziers, as has Ag Agent Otto Wiegand. Cheyenne Christianson, a long-time, organic, dairy grazier in Barron County, receives compensation for mentoring for MOSES and for representing Organic Valley at events. He has been taking calls for years and mentoring for NW Graziers without pay. Similarly, Wayne Jansen, a NW Graziers founder and board member, has been mentoring other graziers without asking for pay. Discussion groups have also not been formalized, but again a number of graziers have met at events and continued to stay in touch and work with each other.

Grant Project Objectives:

- 1) Conduct comprehensive educational instruction to increase acres of managed grazing in NW Wisconsin counties
- 2) Use grazing mentors to provide advice and support to beginning graziers
- 3) Conduct pasture evaluations, weed surveys, collect soil samples, and support on-farm demonstrations and research projects
- 4) Educate local and county governments about the environmental benefits of managed grazing

Accomplishments

- -16 pasture walks (640 attendees)
- -3 discussion group meetings
- -2 winter grazing conferences (174 attendees)
- -3 cow/calf seminars (105 attendees)
- -1300 one-on-one contacts
- -Served Women, Amish, Mennonite, Hispanic, and Native American farmers

Partners

NRCS, UWEX, Pri-Ru-Ta RC&D, NorthCentral/ River Country/ABDI Graziers, GrassWorks, UWRF, UW Madison, WITC, DATCP, NW Regional Food Network

Project Location

Northwest WI

Contact Info:

Otto Wiegand, Pri-Ru-Ta RC&D W6636 Hwy 70 Spooner, WI 54801 (715) 635-3506 otto.wiegand@ces.uwex.edu

Fox River Graziers Network Educational Opportunities Enhancement (829-2)

One of the major accomplishments of this grant was a trip to the Michael Fields Ag Institute. The purpose of the trip was to experience first hand what projects Michael Fields is engaged in pertaining to grazing and sustainable agriculture. A total of 14 persons signed up to make the trip, two agency people, ten farmers (graziers) and two restaurant chefs. The tour at Michael Fields covered their research into finishing beef on grass using permanent pastures and various annual plantings to form a forage chain to meet dietary needs, and reach on corn varieties.

The group gained insight into the properties of the various grasses being used in the finishing of beef and the value of providing a continuous food chain through the use of annuals. An unforeseen benefit of this trip was the insight it provided the two chefs that accompanied the group. It gave them a much better understanding of what was involved in the production of a premium grassfed product and it gave the farmers a chance to develop links that can potentially expand their market.

This grant project also co-hosted a session on managing pastures during drought conditions with Glacierland RC&D. The main speaker was Jim Gerrish and it was held on the farm of Kevin and Bonnie Ferguson. Jim Gerrish's presentation dealt with pasture management in drought conditions. He helped participants understand the necessary levels of residual after grazing to allow for the build up of thatch and the creation for organic matter that builds soil and helps to conserve moisture. This was a very hands on experience that included a pasture demonstration of what will work and what will not.

Finally, this grant project planned and cohosted a session on soil mineralization, soil microbes and their interaction with other life forms with Jerry Burnetti as a guest speaker. This event was co-hosted with Glacierland RC&D and Organic Valley.

Grant Project Objectives:

- 1) To teach and to train individuals in start-up pasture-based dairy and livestock farming; to help would-be farmers design, implement, and operate a managed grazing system as the major source for their livestock feed
- 2) To increase the number of acres (particularly highly-erodible soils) in managed, pasture-based farming
- 3) To increase the number of people entering farming in Wisconsin

Accomplishments

- -1 trip to Michael Fields Ag Institute (14 attendees)
- -Hosted 2 informational sessions (85 attendees)
- -Served Amish, Menonite, Women, and Asian farmers

Partners

Glacierland RC&D, Organic Valley

Project Location

Eastcentral WI

Contact Info:

Tom Wrchota Fox River Graziers 5200 O'Reilly Rd Omro, WI 54963 (920) 685-6964 wrchota@athenet.net

Wisconsin School for Beginning Dairy and Livestock Farmers (830-2)

Throughout the course of this two year grant, the three-term pasture-based dairy/livestock seminar was held twice at six distance education sites and on the UW-Madison campus. On average, there were 60 students per year enrolled in the class. The class covered a wide range of topics, including but not limited to: dairy and beef pasture management, farm selection and grazing system layout, marketing strategies, dairy goat production and start-up business models. A recent graduate survey shows that over 75% of all graduates of the School are farming in some way, shape or form.

Five of the students from class also pursued onfarm internships with producers around the state. The internship program helps match up students with willing farmers who provide them with a hands-on experience in running a farm.

The School held its Sixth and Seventh Annual Ride to Farm bike ride during the grant period. The purpose of the Ride is to to raise money for the School and to raise public awareness about managed grazing. Over the past two years, the Ride raised almost \$10,000 which goes to support the School in the form of student scholarships.

The School had many unsolicited articles written in numerous publications including The Associated Press, The Capital Times, The Country Today, Graze, WI State Journal, Agri-View, WI State Farmer, e-CALS Newsletter, and The Wisconsin Agriculturalist. The WSBDF was also featured on numerous radio programs, including the WI Farm Network, Cecil's Kitchen, WPR and CALS Radio.

There were numerous promotional displays at a myriad of conferences and conventions, including: State FFA convention, Kickapoo Country Fair, WI Association of State Agricultural Educators convention, Farm Technology Days, Urban-Rural Food and Farming Conference, Celebrating our Rural Communities Barn Dance, and the World Dairy Expo.

Grant Project Objectives:

- 1) To teach and to train individuals in start-up pasture-based dairy and livestock farming; to help would-be farmers design, implement, and operate a managed grazing system as the major source for their livestock feed
- 2) Increase the number of acres (particularly highly-erodible land) in managed, pasture-based farming
- 3) Increase the number of people entering farming in Wisconsin

Accomplishments

- -6 terms of classes (120 students)
- -Held 6th/7th annual Ride to Farm fundraiser
- -5 on-farm student internships
- -Had promotional booths at 7 conventions/conferences (500+ attendees)
- -2 winter farm tours
- -Distributed annual newsletter (1500 recipients)
- -500+ one-on-one contacts
- -Served Native American and Women farmers

Partners

UW Madison Short Course, CIAS, UWEX, NRCS, DATCP, USDA FSA Beginning Farmer Loan Program, WITC

Project Location

Statewide

Contact Info:

Richard L. Cates Jr.
UW Madison CIAS
1535 Observatory Dr.
Madison, WI 54311 (608) 265-6437
rlcates@mhtc.net

Providing Research-Based Educational Grazing Resources to Wisconsin's Agricultural Communities (902-2)

Twenty-four educational presentations were made around the state in response to requests by grazing networks, industry, and government agency partners that provided information on a variety of arazing-related topics to 695 participants during this grant. These presentations covered a multitude of topics, including: soil fertility, pasture finishing research, pasture physiology, livestock behavior and nutrition, forages, organic production and many more. An additional 99 agricultural producers, Extension colleagues and partner agency contacts requested and received researchbased information on pastures and grazingrelated topics through phone, email and personal contacts, including eight farm calls made during this reporting period.

As the use of managed grazing systems has grown throughout Wisconsin, so has the need for transfer of practical research-based information into the hands of those who can use it on their farms. Additional educational needs exist within the allied agriculture industries to support more widespread visibility, acceptance and adoption of pasture-based farming systems in Wisconsin.

This project provided partial support to a pilot project initiated in late 2008 to provide statewide UW Extension specialist capacity to address these needs. The support enabled the project leader to be responsive to requests for educational presentations as well as serve as a source of objective, research-based information for local Extension colleagues, grazing agency contacts, producers, and related ag interests. This pilot Extension effort has clearly demonstrated the need and desire for expanded statewide Extension specialist response, and this GLCI grant project was critical to providing financial support and also increasing awareness of the project.

Grant Project Objectives:

- 1) Develop educational materials, presentations and decision aids for dairy and livestock producers, agribusiness partners and government agencies
- 2) Facilitate on-farm pasture research opportunities statewide
- 3) Provide support to Extension agents statewide via consultation to individual, group, and/or on-farm requests from farmers for research-based answers to pasture management questions in collaboration with local NRCS, RC&D, Extension, and other agency staff

Accomplishments

- -24 educational presentations (695 participants)
- -Developed fact sheet for GrassWorks beginning grazier guide
- -Held joint-agency booth at World Dairy Expo
- -100+ one-on-one contacts
- -Served Native American and Women farmers

Partners

NRCS, GrassWorks, UWEX, UW Madison CALS, Local LWCD and RC&D's

Project Location

Statewide

Contact Info:

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GrassWorks Annual State Grazing Conference (904-2)

The 18th annual statewide grazing conference was held Feb 18-20th in Wisconsin Rapids, WI. The project met its objectives by offering attendees a premiere educational event on managed grazing. Over the two and half days, three keynote speakers and 24 breakout sessions served to educate the new, veteran, and aspiring graziers, and to inspire those who were receptive. In the trade show, more than 40 vendors talked with participants, providing valuable information on grazing-related products and services. There were over 350 in attendance, up 50+ attendees from the previous year.

Farmers could attend one-and-a-half hour sessions on grazing methodology, new small scale irrigation systems for managed pastures, supplemental feeding, pasture management, nutrient management on pasture, and/or genetics for the grazing dairy herd. Questions were answered like; What plants should be in my managed pasture? Can I graze Holsteins? How should supplements be fed?

Other sessions described the necessary infrastructure needed for farmers interested in implementing managed grazing into their operation. New grazing operations need fencing, durable lanes to keep animals out of muddy conditions, water lines to bring water to animals on managed pasture, and a comprehensive grazing plan (written by a regional grazing specialist) that includes the mentioned components, along with pasture seeding recommendations. These essential nuts and bolts of a grazing operation were presented. There were also opportunities for beef, sheep, goat, pig, and poultry producers to learn and share their stories about how grazing and using managed pastures works, and can work for their system.

Reviews were enthusiastic and positive, and many commented on the welcoming community element of the event. Plans are underway for the 2011 conference in February.

Grant Project Objectives:

- 1) Increase knowledge of various aspects of grazing within the grazing community via current research and other available resources
- 2) Increase cohesiveness within the grazing community, including farmers, researchers, educators, advocates and consumers/citizens
- 3) Increase awareness and adoption of grazing practices by those new to the grazing community
- 4) Improve management practices of established graziers

Accomplishments

- -24 educational presentations, including 3 keynote speakers
- -40+ vendors
- -350+ attendees
- -Served Native American, Mennonite and Women farmers

Partners

NRCS, UWEX, DATCP, Land and Water Conservation Departments and Resource Conservation and Development organizations from across the state

Project Location

Statewide

Contact Info:

Gerald Jaeger, President Grassworks, Inc. N1387 Rolling Drive Campbellsport, WI 53010 (920) 533-4725 jaeger@kmoraine.com

GrassWorks Communications and Outreach Program (905-2)

The original grant for this project proposed nine main activities: 1) web-site upgrade, 2) newsletters, 3) facts sheets, 4) work on the Green Tier program, 5) Information piece Why rent to a grazier, 6) education days 7) ambassadors, 8) speakers bureau formation, 9) "why graze" video re-release.

Throughout the grant period most of these activites were accomplished but staff time limitations prevented completion of all objectives. In the end, the project leader balanced the most effective activities with the resources that were available. Upon reflection, good progress was made in reaching out to the general public more than had been done in the past. The ambassador program was also quite successful.

The GrassWorks Grazing Manual was overhauled to include cleaner writing, more pieces for graziers other than dairy farming, and overall better organization.

The managed grazing fact sheets were this project's biggest and best accomplishment. The facts sheets were titled based upon subject: Earth Friendly Farming; Less Saturated Fat, More Omega-3 Fatty Acids; More Vitamins and Disease-Fighting Antioxidants; Better Farming, Better Food. These four sheets were a collaboration between a professional writer - Bridget O'Meara - and the project leader to articulate why managed grazing is great. The sheets exclusively provided information that could be proved via peer reviewed research. These really filled an information gap for farmers across the state. Several thousand of each fact sheet were printed and distributed at various events.

Finally, this project held a lot of meetings with government groups in Madison to try to move the grazing agenda along and be more present "at the table". This included a meeting at the "Dairy Pricing" round table and a presentation to a group from Croatia who were visiting WI.

Grant Project Objectives:

- 1) Increase communication in the grazing community
- 2) Increase communication to policy makers
- 3) Increase communication between graziers and the general public. Raise awareness of the benefits of grazing for all citizens

Accomplishments

- -Completed website overhaul
- -Created 4 grazing fact sheets, distributed 10,000+ copies
- -500+ one-on-one contacts
- -Distributed 3 newsletters to 6,000 recipients
- -Served Native American, Amish, Menonnite and Women farmers

Partners

NRCS, UWEX, DATCP, Marathon Co. LCD, Michael Fields Ag. Institute, Glacierland RC&D, WI DNR

Project Location

Statewide

Contact Info:

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GrassWorks Training and Facilitation Program (906-2)

The GrassWorks training and facilitation program delivered two roundtable workshops that allowed educators to gather, meet each other, learn and contribute ideas to the growth of grazing in Wisconsin. The programming was well received. This project would have greatly benefited from more time to have longer workshops. Given the very productive shorter sessions, it seemed like educators wanted more and would have participated further. This program seemed effective and started to accomplish the goals it set out to achieve.

The project also delivered a revised Grazing Guide which most educators provide to prospective and new graziers. A fact sheet was created and re-printed and then distrubuted throughout the state so that graziers and educators could use them as outreach tools. The Grazing Guide website was especially effective, as educators began sending pasture walk and event information on a regular basis to each other and to GrassWorks for more coordination among interested parties. The website was heavily used and it provided users a scope of pasturewalks from all over the state that had been collected in one spot. This "collecting" helped generate a feeling of a community among grazing educators and graziers across the state.

This project also staffed exhibit tables on behalf of the grazing community at five major events across the state, including the Midwest BioAg Field Day, the Fall Food & Energy Festival, Food for Thought Festival, World Dairy Expo and the WI Organic Conference. Attending these events and promoting grazing in general, was very effective for reaching new audiences that local grazing educators could not reach on their own. From these events, the grant coordinator was able to then connect interested farmers with grazing educators in their hometown, forming partnerships that would not have existed otherwise.

Grant Project Objectives:

- Train and facilitate coordination among grazing educators in WI
- 2) Create collaboration opportunities for grazing educators in WI
- 3) Create materials for grazing educators including updates to the Grazing Guide, the statewide website
- 4) Conduct outreach and furnish resources for educators

Accomplishments

- -2 interactive training workshops (60 participants)
- -Staffed table at 5 events (7,000+ attendees)
- -Distributed the Grazing Guide (1,500 recipients)
- -Distributed letter to graziers on Conservation Stewardship Program (1,000 recipients)
- -Served Native American, Amish, Menonnite and Women farmers

Partners

NRCS, UWEX, DATCP, Marathon Co. LCD, Michael Fields Ag. Institute, Glacierland RC&D

Project Location

Statewide

Contact Info:

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Continuing Education for South Central Wisconsin Graziers (908-2)

The biggest accomplishments of this project were the two informational workshops/pasture walks that it held for graziers in south central WI. The first workshop featured Dr. Michael Casler from the US Dairy Forage Research Center. He gave an informal presentation on Meadow Fescue and discussed pros and cons of other types of grasses and forages. The host farmers then led the attendees on a pasture walk. This was only their first full year grazing their milking herd, so they had excellent insight on "rookie" mistakes and future remedies to handle those mistakes.

Throughout the event, Dr. Casler helped individuals to identify growth habits of several different grass and legume species. Setting up a grazing wedge was discussed in order to educate some of the beginning graziers in the group. Many farmers also had questions about how to handle remaining forage on dairy paddocks. Clipping and a leader/follower system were discussed as solutions. Lastly, some of the beginning graziers had questions about watering systems, so they learned about advantages and disadvantages of different types of water systems.

The second workshop featured Dr. Darrell Emmick, the State Grazing Lands Management Specialist with New York NRCS. Darrell taught about animal behavior principles and how they can be used to optimize livestock production on pasture. Dr. Emmick's workshop provided the audience with a better understanding of matching pasture forage with class of livestock. In fact, the host farmer for the pasture walk recognized that he was not optimizing use of his grazing land. He was relying too heavily on TMR, rather than intense pasture management. As a result, he contacted Brian Pillsbury from NRCS the following week, and asked Brian to work with him to convert additional land to pasture so that he could eliminate his TMR.

Grant Project Objectives:

- 1) Provide new information to the Greater Sauk Area Graziers network so they can improve upon their current grazing management practices
- 2) Increase membership in the Greater Sauk Area Graziers network with a special emphasis on underserved and beginning farmers
- 3) Encourage more farmers in the area to develop and implement MIG as part of their farming operation, as well as to provide continuing education for those already using MIG

Accomplishments

- -2 educational presentations (61 participants)
- -3 pasture walks (85 attendees)
- -Served Amish and Women farmers

Partners

NRCS, DATCP, UWEX, MATC Reedsburg, US Dairy Forage Research Center

Project Location

Southcentral WI

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Managed Grazing in the Chippewa Valley (913-2)

The main goal of the project was to provide the Chippewa Valley Grazier's network the type of events they requested and to provide as much information as possible for them to be successful graziers. The Network is grazier driven and has a good working relationship with Kevin Mahalko, the River Country Grazing Educator and Network Coordinator for the Chippewa Valley Graziers. He provides quality grazing education that the graziers request and need. Community outreach to educate leaders, students, and the public were also goals of this project.

The graziers were generally happy with the network walks and activities, saying that they provided a valuable needed resource through the work and events. The project took opportunities to partner with other networks to provide the best possible experience for the large crowds that accumulated at some walks. This sharing of resources allowed the network to host a talented person like Greg Judy, who was a popular guest speaker.

The network focused on: soil conservation and infrastructure, organic grazing, educating and hosting non-farmers at a grass farm and pasture walks, grass farm fertility research, grazing cow dry matter intake and nutrition information, drought management strategies, economic planning, and walks on Mennonite/Amish grazing farms to further build connections within local communities.

The network was able to provide a greater number of events and educational opportunities due to the increased funding recieved from this grant. The topics were high quality and the events had positive participation, feedback, and evaluations from network members and other attendees.

Grant Project Objectives:

- 1) Provide educational opportunities for members of the Chippewa Valley Grazing network and the public to promote the implementation of proper MIG practices, including 7 pasture walks, a winter grazing conference, presentations at local FFA and Ag High School classrooms, and WSBDF Distance Education
- 2) Provide one-on-one farm visits to the network members who request a consultation visit. Efforts will be made to work with Amish and Mennonite communities to promote MIG
- 3) Help farmers transition to MIG

Accomplishments

- -8 educational presentations/workshops (293 participants)
- -12 pasture walks (438 attendees)-Held spring grazing conference (118 attendees)
- -Participated in 3 national grazing conferences (over 300 contacts)
- -179 one-on-one contacts
- -Served Asian, African American, Hispanic, Native American, Amish, Mennonite and Women farmers

Partners

NRCS, DATCP, UWEX, UWRF, St Croix/ NorthCentral/Central WI River/ PriRuTa/Golden Sands Graziers, CVTC, Cutler Fence, Organic Valley

Project Location

Chippewa Valley

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Building a Community of Experienced, Profitable Graziers with Markets (914-2)

The initial goal of this project was to bring grazing information and education to experienced and beginning grazers as well as consumers by scheduling speakers, pasture walks and events. Regional grazing farmers were asked what they would like to see and hear in order to target immediate education needs of farmers in the area.

A mix of well known bigger name speakers from outside the area attracted everyone and these events provided a place where grazing farmers could talk to each other and ask questions in a comfortable relaxed setting. The attendance was higher on the big name speakers but the basic information needs were met at the pasture walks. Direct farm marketers invited their customer base to the events which increased their awareness to share with their friends and relatives.

Of the numerous events held by this grant, one of the most important and informational was a talk that featured Mark Sturges. Mark is an expert on dung beetles, and the main focus of this talk was on identifying dung beetles and other soil microorganisms that can be helpful to grazing farmers. This talk was especially unique because most farmers thought that dung beetles couldn't exist in Wisconsin's climate.

After conducting evaluations of the program's efforts, there were several conclusions to be drawn from the farmers thoughts. First of all, even the most experienced graziers can learn something from a pasture walk. Secondly, experienced graziers are an invaluable source of information for beginning graziers or people who want to transition to grazing. Third, farmers do not have much time to lead and organize grazing networks. Fourth, soil fertility is a top priority among grazing farmers. Finally, the farmers felt a stronger need for better marketing and distribution of their products.

Grant Project Objectives:

- 1) Provide an educational experience for individuals or farmers new to grazing and also to veteran graziers
- 2) Supply grazing plans to farmers transitioning to MIG with NRCS help
- 3) Organize two new grazing networks in NE WI where networks currently do not exist
- 4) Develop or improve grass-fed products with improved marketing techniques

Accomplishments

- -15 educational presentations/ meetings (200+ participants)
 -5 pasture walks (100+ attendees)
 -350 one-on-one contacts
- -Served Asian, African American, Hispanic, Native American, Amish, Mennonite and Women farmers

Partners

NRCS, DATCP, NE WI Technical College, FVTC, GrassWorks, Various news media, Organic Valley, Grass Point, Fox River Graziers, Fond O Graziers, Michael Fields Agricultural Institute

Project Location

Northeast WI

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St. Croix Valley Graziers Educational Assistance Program (915-2)

This educational program addressed the objectives of this grant through a series of meetings held with the project coordinator, project managers & network members, in which suggestions were made for events & topics to be discussed. Speakers that had specific expertise in relation to the topics suggested were chosen to speak at said events.

Having acquired speakers at most of these events, this program was more effective, allowing participating producers to acquire specific knowledge from the speakers in relation to the topics featured at each of these events. Educational programming included events that arose via networking with various farmers within the Grazing Network, Ag Business Professionals & State/Federal Agency professionals.

All events were marketed and completed with producer feedback not only at the events but afterwards through phone calls to some of the participants at each event. Reviews received were glowing and praised the project coordinators for their efforts in creating well-managed educational events that were relevant to local producers.

An unexpected teaching opportunity for this program came through working with the WI School for Beginning Dairy & Livestock Farmers course held in Menomonie. Through collaboration with the Chippewa Valley Technical College, this event was promoted to members of the St. Croix Valley Grazier's Network & acquired eight students to attend the school. The coordinator for this project attended 14 of the 16 classes offering supplemental MIG information & resources to compliment the topics for each class. The coordinator offered two extra-curricular class events collaborating with two producers from the St. Croix Valley Graziers' Network to share their experience & knowledge on MIG through a class room two hour power point presentation highlighting how each farm is managed, and a two hour on-farm tour of each farm.

Grant Project Objectives:

- 1) Provide on-farm educational events for farmers, ag professionals and the general public about the benefits of MIG and how a grazing operation manages grass during the growing season
- Provide educational opportunities on beginning and advanced grazing management topics
- 3) Provide on-farm, one-on-one educational sessions for beginning and advanced graziers and land-owners who are interested in implementing MIG systems on their farms

Accomplishments

- -13 educational presentations/ meetings (718 participants)
- -5 pasture walks (181 attendees)
- -Held spring grazing conference (118 attendees)
- -400+ one-on-one contacts
- -Served Women farmers

Partners

NRCS, UWRF, UWEC, Organic Valley, St. Croix/Chippewa Valley Graziers, Land Stewardship Project, Hungry Herefords, CIAS, CVTC, Out To Pasture Beef, Olson's Woodville Meats, Hasse Farms, Mahalko Dairy, Pri-Ru-Ta RC&D, Marathon/Dunn Co. LCD, WMMB

Project Location

St. Croix Valley

Contact Info:

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Coulee Graziers MIG Program (916-2)

The Coulee Graziers MIG Education Program was very successful in achieving as well as exceeding the goals outlined in the original proposal. An additional 10 producers received on-farm educational services and facilitation services were provided to roll out an additional seven pasture walks. The Coulee Group continued to provide excellent services to producers wanting to better understand and implement MIG on their farms.

One event of note featured Doug Bastin from Producers Choice Seed to speak on the advances of grazing plant genetics. This was well attended and Producers Choice Seed had pledged to donate enough Tiffany Teff grass seed and Hay King Sorghum seed to do test plots on six Coulee Grazier Farms to determine the grazeability and palatability of these species on true MIG farms. Farmers planted their seed at varying times and under four different soil prep treatments, they took pictures and monitored grazing harvesting intervals. A field day was held with UW Madison graduate student Marie Schmidt on her weed suppression project and Dr Don Miller, breeder of both the Teff Grass and the BMR Sorghum. Dr. Miller was so impressed with how the two species performed that he offered seed for the 2011 season to continue monitoring how these species fit into WI MIG and forage production.

As a result of the current economic time that agriculture is faced with, the project had many teaching opportunities to discuss business planning with those new producers who purchased land previously but are now looking at doing value added enterprises to complement off-farm income and have the farm help pay for itself. On existing full time grazing operations, additional tools were needed to again address lowering cost of production while maintaining animal health, finding substitutes for expensive corn and supplements, and dealing with below the cost of production pay prices for fluid milk and meat products. 2009 to 2010 has been very challenging for all producers large and small, organic and conventional.

Grant Project Objectives:

- 1) Provide on-farm educational events for farmers, ag professionals and the general public about the benefits of MIG and how a grazing operation manages grass during the growing season
- 2) Provide educational opportunities on beginning and advanced grazing management topics
- 3) Provide on-farm, one-on-one educational sessions for beginning and advanced graziers and land-owners who are interested in implementing MIG systems on their farms

Accomplishments

- -7 educational workshops/ meetings (161 participants)
- -16 pasture walks (299 attendees) -Held spring grazing conference (118 attendees)
- -1000+ one-on-one contacts -Served Pacific Islander, Amish, Mennonite and Women farmers

Partners

NRCS, UWEX, Buffalo Co. Beef Council, WTC, FCS, Superior Auction Services, CVTC, Seed Solutions, St Croix/Chippewa Graziers, Organic Valley, Badgerland Financial

Project Location

Westcentral WI

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MIG Establishment in Nine Central Wisconsin Counties (918-2)

Golden Sands RC&D's educational programming addressed the objectives set forth in its proposal by offering a variety of events and by continuing critical partnerships and forging new ones. The project attempted to offer a diverse array of educational opportunities and services, i.e., conferences, pasture walks, meetings, newsletters; covering a wide range of topics in order to positively impact as many individuals as possible. Personalized farm visits and individualized farm tours provided a safe and non-threatening forum for beginning and prospective graziers to ask honest questions and receive honest answers. All events had a solid number of participants show up indicating that discussion topics were on target. Success in writing 23 grazing plans representing 1,500 acres is evidence that Golden Sands educational programming is having a positive effect.

Connecting with underserved audiences continues to pose a challenge. This goal remains at the top of the project's priority list. Several Mennonite, Amish and female farmers attended the "Heart of Wisconsin Grazing Conference" and some pasture walks. One pasture walk even showcased the dairy operation of a female farmer.

Golden Sands RC&D is especially proud of forging a partnership with the University of Wisconsin Stevens Point (UWSP) Sustainable Agriculture in Communities Society. A relationship was formed through an informational meeting in which Teal Fyksen presented on the many benefits of managed grazing which piqued the student's interest to the point of wanting a tour of a managed grazing farm. A tour of Caldwell's Beltie Beef organic farm was organized and 10 students participated. The reason Golden Sands RC&D is proud of this outreach is because it taraeted the natural resource professionals of the future. The NRCS and LCD employees of tomorrow; many of whom had never stepped foot on a farm, let alone a grazing farm. It was a fantastic opportunity to dispel myths and compare and contrast conventional farming to MIG.

Grant Project Objectives:

- 1) Attract new MIG farmers and offer continued education to established producers, assisting them in developing sound pasture and business management strategies resulting in increased profitability, superior lifestyle, improved production, and a healthier environment and local economy
- 2) Educate farmers, ag lenders, agribusiness professionals, educators, policy makers and the general public on the benefits MIG provides in terms of farm profitability, economic stability, business opportunties and environmental health

Accomplishments

- -22 educational workshops/ meetings (325 participants)
- -11 pasture walks (376 attendees)
- -Held winter grazing conference (150 attendees)
- -535 one-on-one contacts
- -Served Amish, Mennonite and Women farmers

Partners

NRCS, UWEX, DNR, Marathon/ Portage/Waupaca Co. LCD, CWGCA, US Fish/Wildlife Service, Pri-Ru-Ta RC&D, MSTC, UWSP, Wood County Town Chairs Association

Project Location

Central WI

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North Central Grazier MIG Education and Demonstration Project (921-2)

Through the conferences, discussion group meetings and pasture walks that Pri-Ru-Ta hosted, this project brought a wealth of grazing related information to area farmers and aa business people. The programs proved to be very effective in the amount of different arazing topics & methods that the speakers presented at grazing conferences, discussion meetings and pasture walks held by the project. Success of the events was measured by the outstanding attendance at said events. There have also been a number of people inquiring about grazing, and who ultimately invited project staff on their farms to layout a grazing plan, while those already grazing have implemented some of the ideas set in motion by the project.

The network maintains many businesses on its mailing list. This includes banks, implement dealers, feed stores, and fencing suppliers. By partnering with traditional "farm" businesses like Organic Valley, Mullins Cheese, and Gad Cheese/Grassland Products – not only can they promote their products/services, but the reps also get an understanding of grazing and the potential benefits of starting a grass-based product line.

The general public were informed about managed grazing and the network events through a variety of avenues. News releases, feature articles and pasture walk ads were placed in local shoppers & newspapers, the local radio station announced upcoming walks, copies of "The Grazing Planner" were placed at local businesses and in brochure racks at the USDA-Service Center, and, the best advertising of allword of mouth between neighbors.

The NorthCentral Graziers network also helped promote other grazing events throughout the NW 10 counties of WI during the grant period. These events included the 2010 GrassWorks annual conference, a conference in Hayward that featured Joel Salatin and a local pasture walk afterwards, as well as a pasture walk that NW Graziers held.

Grant Project Objectives:

- 1) Through educational and demonstration efforts, this project will have increased by 70 the number of active graziers in the North Central Graziers Network by September 2011. This project will provide assistance to 10 underserved farmers and 20 new livestock producers by April 2010
- 2) Continue to publish the quarterly newsletter, "The Grazing Planner" through September 2011
- 3) Outreach to business community and the general public

Accomplishments

- -3 discussion groups (66 attendees)
- -2 no-till drill demos (83 attendees)
- -6 pasture walks (295 attendees)
- -Hosted 2 winter grazing conferences (568 attendees)
- -920 one-on-one contacts
- -Served Amish, Mennonite and Women farmers

Partners

NRCS, UWEX, DATCP, DNR, FISTA, Chippewa Valley/Central WI River/ NW/Golden Sands Graziers, Fish & Wildlife Service, River Country RC&D, Marathon Co LCD, Organic Valley, Michael Fields Ag Inst., UW Madison, Lake Superior Grazing Initiative

Project Location

Northcentral WI

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Grass-Legume Mixtures for Improved Yield Distribution and Sward Density (831-3)

The first objective of this project was to quantify growth rate, seasonal distribution of yield, species compostion and nutritive value of select grasses and grass-legume mixtures. The second objective was to determine sward density of select grasses and grass-legume mixtures over the growing season.

Seven grasses (orchardgrass, tall fescue, meadow fescue, Kentucky bluegrass, reed canarygrass, smooth bromegrass, and quackgrass) were sown alone or in binary mixtures with white clover or kura clover in 2007. Solo grass was fertilized with 200 pounds (in 50 pound split applications) of nitrogen/acre/year. Soil fertility was maintained at optimum levels for pasture, based on UWEX guidelines. Plots containing orchardgrass, tall fescue, meadow fescue and Kentucky bluegrass were defoliated every 28 days and those with reed canarygrass, smooth bromegrass, and quackgrass were cut

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Project Location:

Arlington, WI

Primary audience and participants:

Graziers statewide

every 35 days. Growth rates were calculated by subsamples collected on days 14, 21, and 28. Sward density was calculated on days 28 or 35 (for respective experiments) by measuring height of sward and sampled area to get yield per volume. Dry matter yield and species composition were measured from the harvested forage on days 28 or 35. Nutritive value of forage was measured on days 28 and 35. Field data was collected in 2008-2009 and lab analysis was completed in the summer of 2010.

Stands of grasses and grass-clover mixtures were excellent over the two years of evaluation. Growth rates of nitrogen fertilized grasses ranged from 0 to 172 lb forage/acre/day, and were greater than grass-clover mixtures in early season (April and May), similar to mixtures through midseason, and slightly lower than mixtures in September. Tall fescue, meadow fescue and orchardgrass, with or without legumes, tended to exhibit greater growth rates than other grasses, especially in mid-summer. Total season yields of nitrogen fertilized grasses ranged from 1.7 to 4.2 tons/acre and were almost always greater than grass-clover mixtures. Seasonal distribution of yield tended to be better with grass-clover mixtures than with solo grass. The proportion of legume in mixtures was greatest for white clover in the first year (40 to 90%) but ice sheeting damaged white clover over the 2008 winter. In the second season, kura clover proportions ranged from 10 to 80% and were greater than white clover. It was expected that including legumes in mixture with grasses would increase sward bulk density compared to solo grass, but this was not observed. The excellent grass stands with N fertilizer had equal or greater bulk density as grass-clover mixtures. Indicators of nutritive value of forage (crude protein, digestibility, neutral detergent fiber) almost always favored grass-clover mixtures over solo grass.

Observed yield (both total yield and seasonal distribution of yield) of tall fescue and meadow fescue demonstrate that these grasses have potential to perform as well as or better than orchardgrass, one of the most popular grasses in Wisconsin pastures. Addition of legumes and suspension of nitrogen fertilizer application reduces yield but improves nutritive value of forage. Future animal performance experiments on pastures containing tall fescue or meadow fescue with or without clovers will validate the survey data collected in the current project.

Warm and Cool-Season Grasses for Grazing: Are Improved Varieties Better? (833-3)

Primary objectives for the warm season grass project included the development of effective methods for managing and maintaining native warm season grass pastures in the upper Midwest. While the project will only report on two years of grazing results, baseline data was collected observing how native grass seed types respond to defoliations that occur at different times within a growing season, both above and belowground. This data provides the opportunity to assess tradeoffs between the different treatment combinations and begin developing strategies for how to manage native grass pastures for both long-term productivity and persistence, which meets the primary objectives set forth for the project.

The study was set up with two graze timing treatments, early and late, named for when grazing rotations were

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Project Location:

Columbia County

Primary audience and participants:

Graziers statewide

initiated within a growing season. Treatments were applied to experimental paddocks of ecotype and variety seed types. Response variables included forage mass accumulation, forage quality, vegetation percent cover and etiolated growth estimates. The estimation of etiolated growth was added in spring 2010 to assess belowground responses of the native grass seed types to the graze timing treatments.

There were a number of above ground responses relative to available forage accumulation, forage quality and vegetation cover. First, the results showed that delaying initial graze timings until mid-July in Wisconsin resulted in greater total accumulation of available forage than amounts that accumulated when graze timings were initiated in June. Forage quality of native grasses was inversely related to forage quantity at each initial graze timing, as the quality of forage was significantly higher in June than July in both 2009 and 2010. Another observation was that initiating grazing rotations earlier in the growing season (June) resulted in a shorter rest period needed to obtain target quantities of forage regrowth – 38 day rest period when first grazed in June vs. 60 day rest period when first grazed in July. Thirdly, the native grass guild dominated vegetation cover in all experimental paddocks. Big bluestem and Indian arass cover was slightly areater in variety seed paddocks than ecotype paddocks, however there were no effects of graze timing treatments on native grass cover. Finally, cover of undesirable pasture species such as Canada thistle and dandelion were affected by graze timing treatments. Thistle cover was significantly greater in early graze timing paddocks. In contrast, dandelion cover was significantly greater in late graze timing paddocks.

These results have important implications for farmers as they outline tradeoffs associated with the management of native grass seed types under different graze timings, which could ultimately inform farmer decisions when choosing seed to establish a native grass pasture. It is important to recognize that the results outlined above are from a single study and site and data collection occurred over a short period of time (two years). While there are many other questions that need to be answered in terms of using native grasses for pasture in the upper Midwest, it is also important that long-term studies be established do investigate the potential role native grasses can play in MIG systems in the region.

Do Early Grazing Experiences Influence How Lactating Cows Graze? (834-3)

The purpose of this project was to answer the following questions: How do dairy cattle adapt to grazing and do experiences with grazing at a young age influence how lactating cows graze? How do lactating cows with no previous grazing experience behave, relative to animals with grazing experience in the short term and long term? We were successful in accomplishing our objectives with no major modifications from the original proposal.

The project was conducted from 2008-2010 with a group of 64 heifers. In 2008 and 2009, animal behavior was monitored in 21 Holstein and 11 Holstein-Jersey yearlings at the Marshfield experiment station. Two heifer groups (eight per group) had been exposed to pasture from August through October 2008, while the other two groups had been continuously housed in a bedding pack barn since weaning. All

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Project Location:

Marshfield, Arlington

Primary audience and participants:

Graziers statewide

four groups were housed in the same bedding pack barn from November 2008 until the start of the experiment in 2009.

In June 2009, heifers were assigned to one of four Italian ryegrass pastures. The experimental unit was paddock and the experimental design was a randomized complete block. Each group was allocated approximately 50kg pasture DM/head initially. Animal activity was assessed by visual observation. The same person recorded the activity of each heifer every 15 minutes from 0700h to 1600h during the first five days of the study. Heifer's activities were categorized as: walking, drinking water, grazing, lying down or standing but not grazing. Behavior of heifers that grazed in 2008 initially differed from those with no previous grazing experience. During the first day, heifers with grazing experience spent more time grazing than heifers that had no prior grazing experience (57 vs. 43% of the time, p<0.05). By the fourth day no difference between treatments group was observed. After the first week, behavior was monitored every two weeks through August, 2009 (seven periods, two consecutive days per period). After the initial week on pasture, both groups spent approximately sixty percent of the time grazing (60 vs.59 % of the time, p>0.05).

At the end of the grazing season animal body weight was not different between experienced and inexperienced animals (451 vs. 442 kg, p>0.05). The data suggests that prior grazing experience initially affected animal behavior on pasture. Time spent grazing increased for both experienced and inexperienced heifers over the first few days of the grazing period. Both groups of heifers adapted to the pastures within one week and there was no evidence that grazing behavior or weight gain were affected after the first week of pasture adaptation.

All four groups of heifers were returned to the bedding pack barn in Marshfield after the grazing season ended in 2009. During December of 2009 through February 2010, the heifers were moved from the Marshfield station to the Arlington research station. Fifty-six of the original 64 animals allocated to this study calved in Arlington between January and April 2010. All were housed in free stall facilities and fed conserved forage until they began grazing on May 17, 2010. The four groups of first lactation heifers were then placed on Fescue/clover pastures and monitored for milk production and grazing behavior over the summer of 2010.

Do Early Grazing Experiences Influence How Lactating Cows Graze? (834-3)

The four treatment groups consisted of: Group One, heifers that had grazed in 2008 and 2009 and 2010. Group Two, Heifers that had grazed in 2008, remained in confinement in 2009 and grazed in 2010. Group Three, Heifers that had been raised in confinement in 2008, grazed in 2009 and 2010. Group Four, Heifers that had been raised in confinement in 2008 and 2009 and were placed on pasture for the first time in 2010.

During the first four days of the grazing season in 2010, the first lactation heifers from group one (heifers that had grazed in 2008 and 2009) and group three (heifers raised in confinement in 2008, grazed in 2009) produced more milk, spent more time grazing and walked further than the other two groups of heifers. (The other two groups had not been exposed to pasture in 2009). By the second week of the 2010 grazing season, all four groups were producing similar amounts of milk and were spending about the same amount of time grazing and walking similar distances per day.

As the summer progressed, all four groups of cows appeared to adjust their grazing behavior (distance walked and time spent grazing). The adaptations in grazing behavior may have been due to changes in environment and pastures or to increased experience. Total milk produced per group for the 2010 grazing season were not different and milk production averaged 62.5 lbs per cow per day over the duration of the 2010 grazing season for the four groups.

We learned in this study that prior experiences do influence how heifers and cows graze during the first few days of the new grazing season. Cattle with no prior experience do not graze as much and produce less milk when first exposed to pasture, when compared to animals that had grazed the previous year. All animals adapted to the pastures within the first week of the grazing season but all groups continued to modify their behavior (time spent grazing and distance walked) as the season progressed. This continuing adaptation was similar for all groups and appears to be due to changes in environement and pasture.

Feasibility of Dairy Pasture Irrigation on Wisconsin's Central Sands (837-3)

The main objective was to determine the financial feasibility of irrigating pastures on well drained soils. In order to attain this objective a K-line irrigation system was installed on Paul Onan's farm, located in Amherst Junction, Wisconsin in June 2009. K-line irrigation was chosen because of the lower capital investment, easy assembly and installation, adaptability for livestock grazing systems and varied of terrain, and its efficient application of water.

Following an extremely dry season in 2009 (July 1-September 30) when 7.25 inches of rain was received, and an extremely wet season in 2010 (July 1-September 30) when 22 inches of rain was received, we were able to do a cost analysis to determine the financial feasibility of

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Project Location:Central Sands Region

Primary audience and participants:

Graziers with Sandy Soils

this irrigation technology under these circumstances. In short, irrigating pastures on sandy soils makes sense when there is very little rain. It may not make much sense when there is an abundance of rain.

During the project, two research paddocks were established. Each paddock consisted of two non-irrigated control strips and four irrigated strips. Three of the irrigated strips were irrigated according to the farmer's discretion. One irrigated strip was irrigated according to the soil moisture monitor's recommendation. When soil moisture monitors would reach 30-40 centibars of soil tension then irrigation would begin.

During the 2009 season, irrigation amounts were monitored with rain gauges. In 2010 water pressure gauges were installed on the last pods of the irrigation lines. The pressure gauges determined actual application rates. Forage production was monitored in each strip in both paddocks weekly with a digital rising plate meter. Forage samples were collected twice each season. Samples were sent to the AgSource Soil and Forage Laboratory in Bonduel, WI for forage quality and dry matter analysis. Data collection involved documenting daily rainfall amounts and evapotranspiration rates, monitoring soil moisture sensors, and while irrigating, beginning and ending times of irrigation events, and irrigation amounts per irrigation event.

It will take several years to determine whether the irrigation of pastures with this technology will consistently return a net benefit to the producer. It was learned that during extremely dry seasons supplemental irrigation on well drained soils is a good investment. During seasons when there is an abundance of rainfall, irrigation is not a good investment. However, even with extreme data sets, the results from this project will allow farmers to estimate installation costs and project what the feasibility of irrigation might be on their farms.

How does supplemental irrigation perform during seasons with near normal precipitation? Due to the extreme conditions of the two research seasons, more repetition, while hopefully experiencing near normal amounts of precipitation, will be beneficial in order to conduct a more thorough feasibility analysis.

Benefits of Increasing Grazing Height on Weed Suppression (838-3)

The objectives of this study were to evaluate whether increasing grazing height in the fall through summer would decrease establishment of burdock, Canada thistle and plumeless thistle and how canopy light interception is associated with burdock rosette density. Since this new management strategy could affect forage yield and quality, an additional objective was to measure if these variables differed between treatments.

Field experiments were conducted from the fall of 2008 through the summer of 2010 at Arlington Agricultural Research Station, Badger Agricultural Research Station and Franbrook Research Farm in Arlington, Prairie du Sac and New Glarus Wisconsin, respectively. All sites were dominated by cool season grasses.

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Project Location:

Southcentral WI

Primary audience and participants:

Graziers statewide

Five simulated grazing treatments were established at each site in November of 2008 and 2009 and maintained throughout 2009 and 2010 in a randomized complete block design with four replications. Plots were six by six meters and fenced to separate treatments from active grazing in nearby fields in August. Treatments consisted of clipping grass with a hedge trimmer or a sickle bar mower, removing clipped biomass and leaving a specified residual height. Each plot was cut to the treatment height, and then allowed to re-grow during the rest period until the next simulated grazing event. The simulated grazing was conducted as close as possible to actual grazing timing for rotationally grazed pastures in study sites' region, but length of rest period varied throughout the season based on plant growth. To ensure adequate weed pressure, 600 pure live seeds/m² of burdock, Canada thistle and plumeless thistle were broadcast into the plots in November 2008 and 2009. Treatments were also implemented on three private farms in Trempealeau and Rock counties. Weed seed was not added to these farms, but forage quantity and quality data was collected. This data was compared to data found on research farms.

Our data demonstrate that retaining at least 15 cm of residual height in the fall through the first grazing period in spring (May) can decrease Canada thistle and plumeless thistle emergence compared to treatments that grazed to five cm in the fall and spring. Increased light interception, particularly in the early spring (April), appears to be one mechanism for the suppression of these thistles, similar to previous studies with burdock. Others have demonstrated that typical pasture species have the ability to outcompete weed species, specifically in years of good pasture growth. Although increasing grazing heights to 15 cm has the potential to reduce forage quantity at specific grazing events, total forage quantity was only reduced at one site when increasing the residual height to 15 cm. Forage quality may be reduced with higher grazing heights, but this reduction was only observed in June and July. This study demonstrated that data collected on research farms can differ, but differences between treatments were similar in this situation. Research farms and private farms are valuable for research. For example, weed data could not have been collected without access to research facilities, while employing private farms to host university research not only encouraged local participation, but also can resolve any yield discrepancies between farms. The survey spawned questions that will direct future weed science research as well as increase farmer awareness of new weed management techniques.

Development of a Grass-Based Cattle Finishing System for Wisconsin (840-3)

The objective of this project was to determine what type of growth performance, carcass merit, and economic outcomes might be expected from finishing beef cattle on pasture in a Wisconsin setting utilizing a well-managed intensive rotational grazing system.

20 BueLingo steers and 17 steers from the UW-River Falls herd were chosen for this trial. The UWRF cattle consisted of four purebred Polled Herefords and 13 crossbred steers from either ½ Angus- ½ Hereford or ¾ Angus- ¼ Hereford cows All steers were weaned in November 2008, and on March 31, 2009 were weighed and assigned to either of two treatment groups, feedlot fed or pasture fed.

Graziers statewide On May 20, starting weights for individual steers were

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Project Location:

River Falls

Primary audience and participants:

determined. At this time, the pasture fed steers were put out to pasture, feeding exclusively on grass and legumes as well as trace mineral salt blocks. The feedlot fed steers were fed a mixture of 80:20 corn grain:corn silage (DM basis) plus minerals and vitamins to meet NRC requirements.

bromegrass, perennial ryegrass, red clover, white clover, and alfalfa. Each paddock was

August 20 the steers were moved to a new break every other day. After that, steers were

determined that the pasture had stopped producing adequate forage so the pasture fed

The pasture fed steers were rotationally grazed throughout the summer, feeding on pastures composed of a variety of grasses and legumes, including orchardgrass, festulolium, novel endophyte tall fescue, meadow fescue, bromegrass, meadow

approximately 5 acres and was subdivided into breaks of 1.25 acres. From May 20 to

moved every day in an attempt to improve rates of gain On October fifth, it was

steers were finished on a ration of alfalfa haylage and trace mineral salt.

All steers were weighed approximately every 32 days and scanned with real time ultrasound. When individuals reached proper market weight for their frame size and a minimum of 0.30 inches of backfat at the 12/13 rib, they were scheduled for harvest. The steers were processed at various sites in MN and WI. Typical carcass data was collected on all animals including carcass weight, backfat, loin muscle area, and marbling score. USDA quality and yield grades were calculated using this data. Samples of the loin muscle were sent to the North Dakota State University meat laboratory for a sensory analysis that tested for juiciness, tenderness, flavor intensity and off flavors.

An economic analysis was also conducted to determine the cost of production for each cattle finishing system. The goal of this analysis was to determine a cost per pound of gain within each system. Expenses incurred within the feedlot fed group included feed, bedding, labor and vet service. Expenses incurred within the pasture fed group included land rental, water lines and equipment, fencing, labor and vet services.

Development of a Grass-Based Cattle Finishing System for Wisconsin (840-3)

It was determined that the feedlot fed steers had a significantly higher daily weight gain during their finishing period than did the pasture fed steers. Feedlot fed steers were growing at a rate of 2.89 pounds per day compared to 2.07 pounds per day for pasture fed. As a result, the feedlot fed steers had a significantly shorter time to slaughter. In spite of that, all pasture fed steers reached market at 20 months of age or younger (Table 1).

In terms of carcass performance and sensory analysis, the results varied among the treatments. Pasture fed steers had a significantly lower amount of backfat. This resulted in a significantly more desirable yield grade for the pasture fed steers, meaning that they had a higher % of boneless, closely trimmed retail cuts from the high-value parts of the carcass. However, there was no statistical difference between treatments in terms of marbling degree and % of carcasses reaching low choice although feedlot fed steers did have a slight advantage in both categories. Sheer force (tenderness) and percent cook loss were similar among the treatments, with a slight edge to pasture fed beef. There was a non-significant statistical trend toward more tender beef from pasture fed steers. Juiciness scores, however, were almost identical. In trained taste panel testing, feedlot fed beef had a significantly higher flavor intensity and a significantly lower amount of detectable off flavors.

From an economic standpoint, pasture fed beef was a more cost effective method. Even with the added cost of finishing the steers on haylage due to seasonal constraints on forage growth, costs were measurably lower for the pasture fed treatment (Table 2).

With the goal of this research in mind, it can be concluded that finishing steers on pasture an effective method of production. This was manifested in the fact that even though growth rates were slower than for the feedlot group, the pasture group reached market within a very desirable age range. In addition, cost per pound of gain was considerably lower for the pasture group. Furthermore carcass performance lacked any statistically significant differences between the two treatments. Sensory analysis was an area where the two treatments differed somewhat. The pasture fed beef had significantly higher levels of "off flavors." This result is not surprising due to the fact that the pasture fed niche market has been founded on the fact that such products have flavors not typical of feedlot raised beef. Because the standards for such testing were created before pasture fed products were popular, it is difficult to determine if "off flavors" are actually a negative quality.

Item	Feedlot	SEM	Pasture	SEM	P
N	18		18		
Receiving Weight (lbs.)	814	21.9	823	24.7	0.783
Start Weight (lbs.)	946	23.5	873	23.6	0.036
Harvest Weight (lbs.)	1226	24.9	1226	23.1	0.987
Average Daily Gain (lbs.)	2.89	0.12	2.07	0.07	<0.001
Days From Start Wt. to Slaughter	119	4.7	187	5.6	<0.001

Table 1: Growth parameters for feedlot vs. pasture finishing treatments. Harvest weights represent the last monthly weight projected to harvest date using the most recent ADG.

Item	Feedlot	SEM	Pasture	SEM	P
N	18		18		
Carcass Weight (lbs)	795	15.3	756	17.3	0.103
Backfat (in)	0.59	0.019	0.29	0.018	<0.001
Ribeye Area (in²)	12.8	0.27	12.5	0.38	0.545
Yield Grade	3.59	0.099	2.59	0.107	<0.001
Marbling (400 = Sm ⁰⁰)	484	115	471	21	0.351
Percent Choice	100.0		77.8		0.132

Table 2: Comparison of carcass measures for feedlot finished vs. pasture finished steers.

Completed Technical Assistance Projects

Grant # Organization		Area Covered	New Plans	New Acres	Revised Plans	Revised Acres
805-1	Town and Country RC&D	Dane, Dodge, Columbia, Green Lake, Jefferson, Kenosha, Milwaukee, Ozaukee, Racine, Rock, Walworth, Washington, Waukesha Co.	19	804		
809-1	Marathon Co. Conservation, Planning and Zoning Dept.	Lincoln and Marathon Co.	34	2,212		
817-1	Coulee Grazier & Grass Farmer	Buffalo, Jackson, and Trempealeau Co.	16	1,019	40	3157
821-1	Southwest Badger RC&D	Crawford, Grant, Green, lowa and Lafayette Co.	17	1,137	3	132
825-1	Sauk County LCD	Sauk Co.	6	220	6	257
827-1	Pri-Ru-Ta RC&D	Barron, Burnett, Polk, Rusk, Sawyer and Washburn Co.	44	2,598	4	230
929-1	Golden Sands RC&D	Adams, Juneau, Marathon, Marquette, Monroe, Portage, Waupaca, Waushara and Wood Co.	28	1,563	1	15
933-1	933-1 Pri-Ru-Ta RC&D Clark, Price, Rusk, Sawyer and Taylor Co.		29	2,422	5	421
Totals			193	11,975	59	4,212



On-Going Projects

This section contains highlights and updates from all on-going Technical Assistance, Education and Research projects



South West Wisconsin Education

Grazing Outreach in the SW WI Grassland and Stream Conservation Area (917-2)

2010 HIGHLIGHTS

- -This project has become primarily focused on demonstrating the potential of using goats to manage vegetation in overgrown savanna remnants in southwest Wisconsin.
- -Held one pasture walk at the Marr beef farm near Mineral Point, 25 attendees
- -Planning a 2011 goat grazing demonstration at Yellowstone Lake with UW professor John Harrington and DNR wildlife manager Bruce Folley
- -Planning a winter program promoting conservation grazing practices
- -Will continue to work with DNR in SW grassland project area as opportunities arise

Grant Project Objectives:

- 1) Increase awareness of managed grazing as a method to provide habitat for grassland birds and maintain grass cover in riparian areas through educational activities and programs
- 2) Support goals of DNR SW Grassland and Stream Conservation Area Feasibility Study and Master Plan conservation strategies
- 3) Encourage a few clusters of landowners adjacent to each other to create large blocks of land managed with late-cut hay/grazing or controlled riparian grazing

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Lake Superior Basin Education

Grazing Education and Demonstration in the Lake Superior Basin (920-2)

2010 HIGHLIGHTS

- -Held four pasture walks during this time with over 120 total attendees. One pasture walk included a farm tour for beginning farmers from the Lake Superior Farm Beginnings class and another included presentations from UWRF animal nutritionist Dennis Cooper and UWEX ag agent Jason Fischbach.
- -Worked with Women and Native American farmers
- -170 one-on-one contacts
- -Established good working relations with cooperating agencies in the Lake Superior region by attending meetings, person to person contact, e-mail and phone calls
- -Will be attempting to set up formal grazing networks in the region during the next six months

- 1) Improve the ecological and productive condition of each producer's land, while protecting the area's high quality surface water resources
- 2) To improve the economic profitability of farmers' milk and beef production by improving pasture production, and limiting fixed and variable costs
- 3) Improve the social well-being in area rural communities through increased jobs on farm and at processing facilities made possible by growth in beef and dairy production by the adoption of MIG

South East Wisconsin Education

Southeast Wisconsin Grazing Education Program (922-2)

2010 HIGHLIGHTS

- -Held five pasture walks with a total of 135 attendees
- -Held two farm tours with a total of 39 attendees. One tour was provided for homeschooled families and the other was a hands-on tour involving seven new grazing dairy farmers
- -Presented to 68 members of the general public at the Purdy Elementary School, Fort Atkinson, WI Teachers appreciation lunch
- -Over the next six months the Southeast WI Grazing Education project will continue to provide education on managed grazing to farmers and consumers throughout the 13 counties as well as furthering partnerships with agency partners

Grant Project Objectives:

- 1) Increase the number of acres in managed grazing in SE WI
- 2) Improve the ecological and productive condition of existing pastures in SE WI
- 3) Promote managed grazing to farmers as a viable, conservation-based farming practice
- 4) Promote grass-based products to consumers to increase demand

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North East Wisconsin Education

Managed Grazing Success: From Soil to Sales (10201)

2010 HIGHLIGHTS

- -A grazing goat pasture walk was extremely successful. It broke through barriers showing that pasturing goats can be accomplished and can be profitable and viable alternative way to farm. There was a nice mix of beginning and experienced goat farms attending this event
- -A dung beetle and soil fertility pasture walk was also very beneficial to all who attended. It was held on a multi-species farm, which broadened the conversation on the benefits of grazing different livestock classes profitably and building fertility in the soil
- -The next six months will focus on profitability and field management pasturing hogs, sheep, custom heifer raising and transitioning to organic. Having pasture walks on farms that have more than 500 head will be a goal

- 1) Increase knowledge for building soil fertility
- 2) Increase farmer knowledge of natural animal care and management
- 3) Increased consumer awareness and purchasing of grass-fed meat

Statewide Education

GrassWorks Annual State Grazing Conference (10204)

2010 HIGHLIGHTS

- -Planning for the conference has proceeded as anticipated. Bi-weekly planning committee meetings have convened via conference call from late July through September to generate ideas on conference theme, keynotes, workshop topics and speakers. Farmers, agency representatives, educators and supporters have played a crucial role in developing the content of this year's conference
- -The GrassWorks board of directors provided significant input at in-person meetings in August and October and throughout the process via email. Ninety percent of speakers have been contacted and confirmed and the project is in the process of creating the promotional brochure. Tradeshow materials have been sent out to potential sponsors and exhibitors. Food donors are currently being solicited. Information on conference is now available on the website and in the October newsletter

Grant Project Objectives:

- 1) Increase knowledge in the grazing community
- 2) Increase grazing community cohesiveness and inspire graziers
- 3) Increase adoption of grazing by those new to the practice
- 4) Increase public awareness public awareness on the environmental and socioeconomic value of managed grazing lands

Bridget O'Meara (715) 808-0060 info@grassworks.org

North West Wisconsin Education

Northwest Wisconsin Graziers Network Education and Demonstration Project (10214)

2010 HIGHLIGHTS

- -16 pasture walks with 640 total attendees
- -Three discussion group meetings
- -Held two winter grazing conferences with 174 total attendees. Plans are in the works for this year's winter grazing conference in Spooner
- -Three cow/calf seminars with 105 total attendees
- -Facilitated mentoring for new and young farmers
- -1300 one-on-one contacts
- -Co-hosted the 2nd UW River Falls grazing school with ABDI Graziers
- -Served Women, Amish, Mennonite, Hispanic, and Native American farmers

- 1) Conduct comprehensive educational instruction to increase acres of managed grazing in NW Wisconsin counties
- 2) Use grazing mentors to provide advice and support to beginning graziers
- 3) Conduct pasture evaluations, weed surveys, collect soil samples, and support on-farm demonstrations and research projects
- 4) Educate local and county governments about the environmental benefits of managed grazing

North Central Wisconsin Education

North Central Graziers Education and Demonstration Project (10215)

2010 HIGHLIGHTS

- -Held two pasture interseeding demonstrations using three types of no-till seeders, 80 total attendees
- -Held 14 pasture walks with various topics and speakers, including Gary Onan, Rhonda Gildersleeve, and Guy Jodarski. These walks averaged 40 persons per walk. Total walk attendance for the 17 walks was approximately 720 people
- -Utilized a summer intern who helped with pasture walk prep work and also received some on-farm technical assistance training. This opportunity was made available through funding from the WLWCA and matching funds
- -Will plan 2011 pasture walks and discussion groups over the next six months

Grant Project Objectives:

- 1) Help landowners improve the ecological and productive condition of private grazing lands
- 2) Improve the economic condition of farmers
- 3) Improve the social well-being in area rural communities

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Chippewa Valley

Education

Managed Grazing Education in the Chippewa Valley (10216)

2010 HIGHLIGHTS

- -Hosted 11 pasture walks with 532 total attendees
- -Set up a grazing demonstration at St. Croix recycling center for over 500 students and community members
- -Displayed River Country projects and grazing information, and talked with attendees of the Earth Day event at Owen Park in Eau Claire with over 150 attendees
- -Gave a demonstration on grassland bird habitat, migration, nesting and pasture ecology to a group of UW Eau Claire Ornithology students
- -In the next six months, the project will hold a winter discussion series as well as begin to plan pasture walks for the spring and summer of 2011

- 1) Provide educational opportunities for members of the Chippewa Valley Grazing Network and the public to promote the implementation of proper MIG practices, including 7 pasture walks, a Winter Grazing conference, presentations to local FFA and Ag high school students, WSBDF Distance Education classes
- 2) Provide one-on-one farm visits to the network members who request a consultation visit. Efforts will be made to work with Amish and Mennonite communities to promote MIG
- 3) Help farmers transition to MIG

St. Croix Valley Education

St. Croix Valley Graziers Educational Assistance Program (10217)

2010 HIGHLIGHTS

- -Hosted seven pasture walks
- -Held three presentations at the 2010 Farm Technology Days, collaborating with one show case farm from the St. Croix Valley, Chippewa Valley & Coulee Grazier's Networks. Showcase included posters for each individual farm including; farm summaries, maps & multiple pictures of MIG in action
- -Partnered with USDA NRCS APHIS to focus on wolf depredation
- -Held a planning meeting for Blue Skies Greener Pastures, a grazing initiative coordinated by GrassWorks and UW Madison CIAS
- -In the next six months, will hold three discussion groups, a winter conference and one college classroom session

Grant Project Objectives:

- 1) Provide on-farm educational events for farmers, ag professionals and the general public about the benefits of MIG and how a grazing operation manages the various stages of grass during the entire growing season
- 2) Provide educational opportunities on beginning and advanced grazing management topics
- 3) Provide direct, on-farm, one-onone educational sessions for beginning and advanced graziers, and landowners who are interested in implementing MIG systems on their farms

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Statewide Education

Providing Research-based Educational Grazing Resources to Wisconsin's Agricultural Communities (10225)

2010 HIGHLIGHTS

- -Ten educational presentations were made around the state in response to requests by grazing networks, industry, and government agency partners that provided information on a variety of grazingrelated topics to approximately 260 participants during this reporting period
- -An additional 30 producers requested and received information to enable them to make timely decisions for their farms
- -Six on-farm research projects and other GLCI educational projects received support through discussions and technical consultation
- -Provided support to UW and agency partner outreach efforts at Farm Technology Days and World Dairy Expo

- 1) Develop educational materials to meet the needs of dairy and livestock producers, agribusiness partners, and government agency interests for research-based information on pasture-based farming systems
- 2) Facilitate identification, development, coordination and support of on-farm pasture research opportunities across Wisconsin
- 3) Provide statewide UWEX support via consultation to individual, group, and/or on-farm requests from farmers for research-based answers to pasture management questions

Statewide Research

Evaluation of Legume-Fescue Mixtures for Organic Grazing (934-3)

2010 HIGHLIGHTS

- -Continued on-going measurements on paddocks established in 2005: While April and May had low rainfall there was an all-time record rainfall during the period between June 1 and August 30. This and persistence of the white clover components of the older paddocks drove an increase of yield on the white clover treatments of 1,000 pounds of dry matter or 17%. In addition, there was a continuation of improvement in the paddocks with both frost seeded and renovated Kura clover
- -Under GLCI grants #836-3 and #934-3 two replications of paddocks with grazing alfalfa and smooth leaf fescue were implemented. Yields on those pieces were approximately 25% better than the non-treated paddock but below yields on all four of the established paddocks (two with white clover and two with Kura)

Grant Project Objectives:

- 1) To evaluate three legume mixes with meadow fescues and smooth leaved fescues in a MIG system
- 2) To establish best practices for type of legume, how to seed, and additional soil amendments needed
- 3) To determine ease and cost of establishment, yield, quality of sward, and legume persistence

Contact: Jim Munsch (608) 452-3769 jmunsch@mwt.net

North Central Wisconsin/Wausau

Research

Potassium Fertility Rates for Management Intensive Grazed Pastures (935-3)

2010 HIGHLIGHTS

- -A pasture walk was held at the Clark County farm in spring 2010 and at one of the Marathon County farms in October 2010
- -Wet conditions during the summer increased forage yield at all three farms compared to the droughty conditions in the two counties that limited forage production in the pastures in 2007-2009

- 1) To examine the relationship between grazed pasture yield and other parameters and varying rates of potassium fertilization based on UWEX fertility recommendations
- -Calculations of the yield and economic effects of the potassium fertilization for the Marathon and Clark County farms are currently being conducted. The data from all the farms will be statistically analyzed this fall/winter
- -The results will be shared with the Wisconsin grazing community with a variety of means. A one- to three-page Grazier's Notebook paper (from Team Forage with University of Wisconsin-Extension) will be written. Depending on the results of the research, a journal article with Plant Management (online journal) may be written. Newspaper and newsletter articles and PowerPoint presentations will be developed and promoted. The results will also be used at local, regional, or state educational meetings

Statewide Research

Grazing Management Effects on Pasture Productivity, Plant Morphology and Persistence (939-3)

2010 HIGHLIGHTS

- -Initial measurements of pasture sward density and composition were made
- -Measurements of grazing management effects on yield, quality, animal utilization, tiller growth, sward density, and plant physiology were completed throughout the season
- -Soil moisture, temperature, and light transmission data were collected
- -Soil incubations for determination of available nitrogen were completed in spring, summer, and fall
- -Root ingrowth cores for the 2010 season were installed in April and extracted in November

Grant Project Objectives:

1) To provide producers with guidelines to manage pastures in a manner that improves reliability of production, produces forage of the appropriate nutritive value, and increases understanding of fundamental plant growth mechanisms underlying grazing management decisions

Contact: Randy Jackson (608) 261-1480 rdjackson@wisc.edu

Statewide Research

Are Graziers and Plant Breeders Responsible for Reed Canary Grass Invasion? (941-3)

2010 HIGHLIGHTS

- -Over the last six months, this project has achieved several of the goals of its proposal. Genomic molecular markers of sufficient resolution have been developed to achieve the study goals. These markers are based on primers found to be conserved across a wide range of Poaceae species. Five to six regions from each reed canarygrass plant have yet to be sequenced. Early results have identified between 10 and 60 single nucleotide polymorphisms per region. Project staff are in the process of evaluating these markers on the entirety of the reed canarygrass collection
- -Completed data collection evaluating the vigor of wild and cultivated populations at the OJ Noer Turfgrass Research Facility. This data has been analyzed and a manuscript is in preparation

- 1) To determine which reed canary grass cultivars are best to use in Wisconsin pastures while minimizing invasive potential
- 2) To determine the causes of reed canary grass invasion

South West Wisconsin Research

Quantifying Nutrient Loss in Runoff from Grazing Cattle (10301)

2010 HIGHLIGHTS

- -Finished installing all runoff monitoring systems at the eight pasture watersheds at the UW Platteville Pioneer farm
- -Collected runoff from three events that have occurred since July; samples are currently being processed
- -Formed a project advisory group consisting of USDA and UW Platteville scientists and local producers to decide on treatments to be applied to the eight watersheds beginning in 2011
- -Will begin conducting farm interviews on the five cooperating grazing farms in December 2010 or early January 2011

Grant Project Objectives:

- 1) Measure N and P loss in runoff from 8 pastures representing different grazing management strategies
- 2) Use the runoff data to validate the ability of our SurPhos model to predict P loss in runoff from grazed pasture
- 3) Use SurPhos to simulate annual P loss from 5 WI grazing farms using producer-collected data

Contact: Peter Vadas (608) 890-0069 <u>peter.vadas@ars.usda.gov</u>

Statewide Research

Energy Intensity, Carbon Footprint and Environmental Impact of Pasture-Based Dairy (10309)

2010 HIGHLIGHTS

- -Participated in a focus group discussion with farmers and other grazing community's members, in order to understand their viewpoints in terms of 'what should be done to move grazing in WI forward'
- -Consulted with UW-Extension grazing specialists and other grazing professionals to get familiar with typical management strategies and farm structure, and identify questions of interest, aiming to define the scenarios that will be analyzed in this study
- -Over the next six months, the following will be completed: farm visits, data collection, model development, and model validation

- 1) Provide information on the best practices to improve sustainability in grazing systems
- 2) Develop and compare sustainability indicators of grazing systems to other dairy management systems in Wisconsin
- 3) Develop education/outreach programs to inform grazers and other interested parties in the results of our studies

Technical Assistance Projects in Progress 2010

Grant #	rant # Organization Area Covered		New Plans	New Acres	Revised Plans	Revised Acres
923-1	Town and Country RC&D	Columbia, Dane, Dodge, Green Lake, Jefferson, Rock, Washington	16	944	1	120
924-1	Glacierland RC&D	Calumet, Fond du Lac, Manitowoc, Sheboygan, Winnebago	7	444		
925-1	Columbia Co. LWCD	Columbia	6	0	5	308
926-1	River Country RC&D	Dunn, Eau Claire, Pepin, Pierce, St. Croix	25	1,136	6	571
927-1	River Country RC&D	Chippewa, Clark, Dunn, Eau Claire	7	446	5	278
930-1	Pri-Ru-Ta RC&D	Ashland, Bayfield, Douglas	16	781	1	13
931-1	Vernon Co. LWCD	Vernon	3	142		
932-1	River Country RC&D	Buffalo, Eau Claire, Jackson, La Crosse, Trempeleau	18	699	25	1,465
10-103	Golden Sands RC&D	Marquette, Waupaca	2	27		
10-106	Pri-Ru-Ta RC&D	Barron, Burnett, Polk, Rusk, Washburn	19	1,065	4	230
10-112	Southwest Badger RC&D Crawford, Grant, Lafayette		6	214	2	200
Totals			125	5,898	50	3,185

2010 GLCI Steering Committee

Paul Onan, Chair Dairy farmer, Amherst Junction

Mary C. Anderson, Vice Chair Dairy farmer, Whitehall

Representing GrassWorks, Inc.
Wayne Craig, Dairy Farmer, New Holstein
Marilyn Mayenschein, Dairy farmer, Thorp

Representing Wisconsin Farmers Union

And Representing Wisconsin on the National GLCI Steering Committee

Gerald Jaeger, Custom dairy heifer raiser, Campbellsport

<u>Representing Wisconsin Cattlemens Association</u>
Dick Hauser, Beef producer, Richland Center

<u>Representing Wisconsin Farm Bureau</u>
Jerold Berg, Retired dairy farmer, Cascade

Representing the Wisconsin Land and Water Conservation Association

James Alber, Dairy farmer, Tomahawk

Representing the Assoc. of Resource Conservation & Development Councils

Don Bina, Coon Valley

James Costello, Malone

Representing the Wisconsin Sheep Breeders Association Randy Cutler, Sheep producer, Auburndale

Advisors:

Brian Pillsbury, Grazing Lands Specialist, USDA-NRCS, Executive Secretary Paul Daigle, Conservation Specialist, Marathon Co. Cons. Planning & Zoning Rhonda R. Gildersleeve, Ph.D., UW Extension Grazing Research Specialist Laura Paine, Grazing and Organic Specialist, Wisconsin DATCP Dave Vetrano, Fisheries Team Supervisor, Wisconsin DNR



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